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| APPLICATION NO.                                     | FILING DATE                  | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|------------------------------|----------------------|---------------------|------------------|
| 10/027,022  | ,022 12/20/2001 Su-Yong Jung |                      | 678-647 (P9720)     | 1133             |
| 28249   | 7590 01/06/2005              |                      | EXAMINER            |                  |
| DILWORTH & BARRESE, LLP<br>333 EARLE OVINGTON BLVD. |                              |                      | DESIR, PIERRE LOUIS |                  |
| UNIONDALE, NY 11553                                 |                              |                      | ART UNIT            | PAPER NUMBER     |
|   | •                            |                      | 2681                |                  |

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|  | Application No.   | Applicant(s)   |  |  |  |  |
|--|---|--|--|--|--|--|
|  | 10/027,022  |  |  |  |  |  |
| Office Action Summary  | Examiner  | JUNG, SU-YONG  |  |  |  |  |
| ,  |   | Art Unit   |  |  |  |  |
| The MAILING DATE of this communication ann   | Pierre-Louis Desir  | 2681   |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |   |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period we Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 36(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | nety filed s will be considered timely. the mailing date of this communication. O (35 U.S.C. § 133). |  |  |  |  |
| Status   |   |  |  |  |  |  |
| 1) Responsive to communication(s) filed on 18 November 2004.   |   |  |  |  |  |  |
|  | · · · · · · · · · · · · · · · · · · ·   |  |  |  |  |  |
| · · · · · · · · · · · · · · · · · · ·  |   |  |  |  |  |  |
|  | closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.   |  |  |  |  |  |
| Disposition of Claims  |   |  |  |  |  |  |
| 4)⊠ Claim(s) <u>1-4</u> is/are pending in the application.   |   |  |  |  |  |  |
|  | 4a) Of the above claim(s) is/are withdrawn from consideration.  |  |  |  |  |  |
| 5) Claim(s) is/are allowed.  |   |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1-4</u> is/are rejected.   | ·   |  |  |  |  |  |
| 7) Claim(s) is/are objected to.  | •   |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or  | election requirement.   |  |  |  |  |  |
| Application Papers   | •   |  |  |  |  |  |
| 9) The specification is objected to by the Examiner.   |   |  |  |  |  |  |
| 10)⊠ The drawing(s) filed on <u>12/20/2001</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.  |   |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |  |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |  |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |   |  |  |  |  |  |
| 12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |   |  |  |  |  |  |
| a)⊠ All b) Some * c) None of:  |   |  |  |  |  |  |
| 1. Certified copies of the priority documents have been received.  |   |  |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |   |  |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage  |   |  |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  |   |  |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |   |  |  |  |  |  |
|  |   |  |  |  |  |  |
| Attachment(s)  |   |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  | 4) Interview Summary  |  |  |  |  |  |
| <ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> </ul>  | Paper No(s)/Mail Da 5) Notice of Informal Pa  | te<br>atent Application (PTO-152)  |  |  |  |  |
| Paper No(s)/Mail Date <u>10/19/2004</u> .  | 6) Other:   |  |  |  |  |  |

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## **DETAILED ACTION**

This action is in response to applicant's amendment filed on November 18, 2004. Claims
 1-4 are now pending in the present application. This action is made FINAL.

## Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Yi et al. (Yi) (European Patent No. 0961457) (cited by applicant).

Referring to claim 1, as applied in the first office action, Yi disclosed a hinge module (figs 1-7) for mechanically connecting a main body to a folder in a portable radio terminal (portable phone), comprising a hinge shaft having an angled portion on one end and a shaft on another end opposite the angled portion for rotating with the folder (i.e. rotating together with folder) (see abstract and figs. 5-6), a hinge cam facing the hinge shaft and having a pair of angled portions on the surface of the hinge cam facing the hinge shaft, a valley portion between the angled portions, a fixing post along a rotating axis, and a guide protrusion for facilitating sliding of the hinge cam with respect to the hinge shaft while restricting rotational movement of the hinge cam (i.e. the hinge cam valley portion is engaged with the other portion of the hinge shaft in such a fashion that it slides straight in a rotating axis direction) (see abstract', col. 10, lines 13-

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23, lines 26-32, and fig. 6), each angled portion having a gentle slope and a steep slope that are asymmetrical sidewise; a hinge spring disposed along the rotating axis and having one end connected to the fixing post of the hinge cam, for providing restoring force to the hinge cam (i.e. the spring force of the hinge spring is applied in the rotating axis direction; also, the hinge spring is provided to urge the hinge cam toward the hinge shaft; and a hinge housing for sequentially holding the hinge shaft with one end of the hinge shaft protruded, the hinge cam, and the hinge spring (i.e. a hinge shaft, a hinge cam, and a hinge spring are installed in the hinge housing in the direction of a rotating axis in sequential order) (see 01. 9, lines 12-15, and figs 4-6).

Referring to claim 2, as applied in the first office action, Yi disclosed a hinge module, as noted above, wherein when the folder (i.e. flip cover) is raised', the angled portion of the hinge shaft runs over the steep slopes of the angled portions of the hinge cam (i.e., when the hinge shaft rotates along with the flip cover, the hinge cam slides along the hinge shaft) (see fig 6 and col. 11, lines 10-13).

Referring to claim 3, as applied in the first office action, Yi disclosed a hinge module, as noted above, where the hinge module further comprising a hinge cover coupled to the hinge housing for protecting the hinge shaft, the hinge cam, and the hinge spring (i.e. the hinge cover is assembled to the hinge housing in order to protect the hinge shaft, hinge cam, and hinge spring) (see col

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United

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States and was published under Article 21(2) of such treaty in the English language.

5. Claim 4, (NEW CLAIM), is rejected under 35 U.S.C. 102(e) as being anticipated

by Yi et al. (Yi), U.S. Patent No. 6292980.

Yi disclosed a hinge module (see claim 1 rejection as applied in the first office action),

wherein the gentle slope forms an acute angle (i.e., angle less than 90 degrees) (see col. 11, lines

16-17) and the steep slope forms an angle greater than an angle formed by the gentle slope (see

lines 14-17). Furthermore, it is worth noting that applicant does not disclose in the specification

what kind of angle the slope forms (i.e. less or more than 90 degrees). This addition may be

considered new matter.

Response to Arguments

6. Applicant's arguments filed on November 18, 2004 have been fully considered

but they are not persuasive.

In the present application, Applicant basically argues, on page 3 of the remarks, that Yi et

al. (Yi) does not disclose providing asymmetrical slopes on the angled portions of the hinge cam

to provide a shorter opening stroke for the top housing by manipulating the geometry of the

slopes of the angled portions of the hinge cam.

The Examiner respectfully disagrees with Applicant argument because Yi discloses the

hinge modules are mounted in an asymmetrical manner in the receiving portion of the hinge arm.

To support this position, the Examiner refers the applicant to: Yi, col. 12, lines 32-35, and lines

40-52. Based on this disclosure, Yi meet the claimed limitation as disclosed by applicant.

Therefore, in view of the above reasoning, the previous rejection is maintained and made FINAL by the Examiner.

## Conclusion

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is 703-605-4312. The examiner can normally be reached on Monday-Friday from 0800-1630.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R Hudspeth can be reached on (703) 308-4825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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JEAN GELIN PRIMARY EXAMINE

Pierre-Louis Desir

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